

Draft
Environmental Assessment

**Montana Outdoor Discovery Center
Improvement Project**

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Prepared by

Montana Fish, Wildlife and Parks

TABLE OF CONTENTS

Purpose and Need	3
Authority and Regulations	8
Alternatives	9
Proposed Action	9
No Action	9
Affected Environment	9
Physical Resources	9
Land Use	9
Soils and Prime/Unique Farmlands	9
Air Quality	10
Water	10
Noise	10
Biological Resources	11
Vegetation	11
Wildlife Species	11
Fisheries	13
Socio-Economic Resources	13
Community	13
Taxes and Public Services	13
Historic and Cultural	13
Aesthetics and Recreation	14
Predicted Environmental Consequences	15
Land Use	15
Soils and Prime/Unique Farmlands	15
Air Quality	15
Water	15
Noise	16
Vegetation	16
Wildlife Species	16
Fisheries	16
Community	17
Taxes and Public Services	17
Historic and Cultural	17
Aesthetics and Recreation	18
Risk/Health Hazards	18
Cumulative Impacts	18
Public Participation	19
Preparers	19
Appendices	20
A – Concept Map	21
B – Montana Department of Commerce Tourism Report	22
C – Montana State Historic Preservation Office Correspondence	23
D – HB 495 Checklist	24

PURPOSE AND NEED FOR ACTION

BACKGROUND

Alienation of children from the natural world is now recognized as a contributing factor to a broad range of problems. "Nature Deficit Disorder" is associated with increasing rates of childhood obesity, learning disabilities, vitamin D deficiency, increased rates of myopia as well as social and emotional dysfunction (see: "Last Child in the Woods" by Richard Louv, 2005. Algonquin Paperbacks). The lack of exposure to, and involvement with, the natural world has the potential to undermine current and future generations' awareness of, and commitment to, conservation of fish and wildlife resources.

In response to documented trends among youth toward more time indoors, more time engaged with electronic media and increasing rates of "Nature Deficit Disorder," Fish, Wildlife and Parks is developing the Montana Outdoor Discovery Center at Spring Meadow Lake State Park. The purposes of the center are to reconnect children and families to nature and promote conservation and appreciation of Montana's fish, wildlife and recreational resources.

The Montana Outdoor Discovery Center will provide a venue for educational and recreational programs for children, families and other visitors. The center will serve local residents and visitors in the Helena area directly, and will serve statewide, national and even international audiences through state-of-the-art, online distance learning. In addition, the center will serve as Montana's "hub" for training and career development for teachers, volunteers and professionals engaged in conservation education.

Objectives of the Action:

- Develop additional landscape features and facilities at the Center that contribute to its purpose and mission of reconnecting children and families to nature.
- Increase understanding of, and commitment to, conservation of Montana's natural resources.

EXISTING FACILITIES

In 2005, FWP published an Environmental Analysis and Decision Notice that addressed a number of features related to an "Education Center" (now referred to as the Montana Outdoor Discovery Center) and Spring Meadow Lake State Park. That EA and decision proposed the following:

Education Center Area (old Stedman Foundry Complex)

- Renovate and modify the Stedman Foundry Machine Shop for use as an education center with approaching sidewalks, entrance, and infrastructure.
- Dismantle the foundry Pattern House, retaining materials for landscaping, parking barriers, walkways and interpretive displays on site.
- Construct curb, gutter and paved entrance and parking space for approximately 25 – 40 vehicles.
- Construct gravel overflow parking west of the Education Center.
- Construct a Living Stream and small amphitheater. The living stream is an artificial stream that replicates a real stream in a controlled environment for educational purposes.

- Reclaimed disturbed areas with native vegetation and landscaping.
- Erect interpretive outdoor displays.

Recreation Area (Spring Meadow Lake State Park)

- Pave existing gravel road south of the park entrance and parking for approximately 35 vehicles.
- Construct a group use shelter and associated swimming beach.
- Construct an amphitheater on the west side of the park.
- Install a sealed vault latrine.
- Construct connecting trails and a trailhead from the education center to the park.
- Renovate the footbridge at the south end of the lake.
- Establish a nature trail at the southwest end of the park.
- Erect directional and interpretive signs as needed to aid public use.

Pursuant to that decision notice in 2005, FWP completed the following:

Education Center Area (old Stedman Foundry Complex)

- Initial work to stabilize the Stedman Foundry Machine Shop and restore the doors and windows was completed in 2007. After a three-year hiatus, design work to complete the renovation of the building interior is currently under way. Construction is scheduled to begin in July, 2010 and conclude in January 2011. This will provide the basic infrastructure and facilities to begin conducting programs at the Center.
- The Pattern House was removed in July, 2010. About 20% of the limestone was salvaged on site.
- A limited amount of curb, gutter and sidewalk was developed around the Stedman building. More work will be completed in conjunction with renovation of the building in 2010.
- A gravel parking lot was constructed to the west of the Center as part of a major soil remediation project overseen by the Department of Environment Quality (DEQ) in 2009.
- The slope to the north and west of the Center was cleaned up and re-contoured as part of the DEQ soil remediation project to create a space for a 100 – 120 seat amphitheater, but no other infrastructure has been installed to date. Once funding is secured, the amphitheater will be completed.
- Planning is underway to construct a living stream inside the Center building. This stream will be a self-contained, closed system with both cold and warm water sections. It will appear to connect to the living stream segment outside the building. Design work for the exterior segment of the stream is on hold pending completion of renovations to the Stedman building and additional fundraising.
- Areas disturbed by initial stabilization and renovation of the Stedman building and during the DEQ soil remediation project have been replanted with native grasses, shrubs and trees. Planning is underway for additional landscaping around the building, including interpretive gardens. A few trees were planted and weed control efforts have continued in areas disturbed by a human-caused wildfire that burned the southern half of the park and the area around the Center in September, 2007. Substantial habitat restoration work remains to be done in this area.

- A limited number of interpretive signs and displays have been erected.

Recreation Area (Spring Meadow Lake State Park)

- The entrance road and parking area have been paved.
- A group use shelter and associated swimming beach were constructed on the northwest shore of the lake.
- No amphitheater was constructed on the west side of the lake. At this time, FWP does not see the need for this structure, given the location of the group use shelter and plans to develop an amphitheater at the south end of the lake, at the Center.
- A sealed vault latrine was installed between the group use shelter and the main recreation area.
- A connecting trail was constructed between the Center and the loop trail around the lake as part of the DEQ soil remediation project. A trailhead has not yet been developed, but will be in the spring of 2010.
- The original footbridge was destroyed in the 2007 wildfire. A new bridge was constructed in 2008.
- A primitive nature trail was constructed at the southwest end of the park, but this area was devastated by the wildfire in 2007. The trail will be reconstructed as part of the restoration of the area.
- Directional and interpretive signs were erected in some places, but additional signs will be needed.

PROPOSED NEW FACILITIES

Based on further planning for the Montana Outdoor Discovery Center, Montana Fish, Wildlife and Parks (FWP) is now considering adding the following features to the landscape:

- A youth archery/airgun range.
- A children's discovery zone.
- A fishing/aquatic education dock on the south shore of the lake.
- A second group-use shelter.
- An additional vault latrine.

Youth Archery/Airgun Range

Hunter and bow-hunter education programs will be offered at the Center. Learning to safely shoot a firearm or bow and arrow is an essential part of the curricula for these programs. In addition, archery and airgun target shooting are safe, healthy outdoor activities for young people.

There are limited shooting facilities in the Helena area and none specifically designed to meet the needs of young archers or shooters. Construction of a range at the Center would enhance local hunter and bow hunter education programs and provide a venue where young shooters could practice under adult supervision without being intimidated by more mature shooters or discharge of firearms.

To ensure the safety of all parties, the range would be constructed in an existing depression to the west of the entry road with the following features and restrictions:

- The range would be fenced to prevent accidental entry.
- The terrain surrounding the range would be contoured to contain any arrow or other projectile discharged from the firing line.

- A covered shooting station would be constructed with a roof line to prevent the flight of any projectile fired from the firing line traveling outside the berm and fenced perimeter of the range.
- All shooting at the range would be done under adult supervision, either as part of a scheduled program led by a qualified instructor or by the parent or guardian of any youth shooting at the range who agrees to take responsibility for use of the range.
- The range would be secured when not in use as described above.
- Archery equipment would be limited to bows with no more than 30 pounds of draw weight; arrow tips would be limited to field points.
- Airguns would be limited to "BB" or .17 caliber pellet guns.
- Target traps would be used to capture any lead projectiles to prevent soil contamination.
- The shooting station would be constructed to be Americans with Disabilities Act (ADA) compliant.

Development of the range would require some soil disturbance and filling to contour the existing swale to the desired shape and size. The fence around the range would be 48 inches high and would be screened with vegetation to reduce the visual impact. All disturbed surfaces would be re-vegetated with native species.

The shooting station would consist of a 12 foot by 36 foot concrete slab with a storage room on the west end and a sloped roof. An ADA-accessible path would lead to the shooting station and from the shooting station to the target area. A bench or picnic table would be located behind the shooting station so parents would have a place from which to watch their children shoot, or where youth could wait for their turn at the firing line.

Construction of the range is estimated to cost approximately \$75,000. This feature would be fully eligible for federal funding under the Pittman-Robertson (P-R) Program. Twenty-five percent of the cost would be provided by license dollars or private funds donated for range construction and 75% would be federal funds.

Children's Discovery Zone

The Children's Discovery Zone will be designed to stimulate curiosity and imagination of the Center's youngest visitors about the natural world. The central feature will be a large, landscaped frog protruding from the hillside. Meandering paths of permeable recycled blue glass will give the illusion of water flowing between lily pads. The hillside above the "frog pond" will provide a place where children can play and will include "otter slides" contoured into the slope. Rope "webs" strung between trees or boulders will provide a place to climb. An outdoor classroom with vegetated walls and a circle of boulder seats will provide a quiet spot for groups to gather and learn. Parents will be able to sit on a low, rock wall surrounding the area to supervise their children, while letting the children play freely within the Discovery Zone.

Construction of the Discovery Zone is estimated to cost approximately \$120,000. This feature would not be eligible for federal funding under either the P-R or Wallop-Breaux (W-B) programs. Funding would be provided by state special revenue, private donations or grants acquired by FWP.

Fishing/Aquatic Education Dock

Angler and aquatic education programs will be offered at the Center. Construction of a dock on the south shore of the lake will facilitate these programs by providing safe access to the relatively deep water along the south shore. Construction of a dock will also reduce the impacts to shoreline vegetation and soils by giving Center visitors a place to stand or sit while fishing or involved in an aquatic education program.

The dock would be constructed with driven pilings and a fixed surface to provide safe, ADA-compliant accessibility regardless of water level. A railing would be constructed around the perimeter of the dock to reduce the risk of accidental falls into the water without interfering with the ability to fish or collect water samples from the dock. The dock would be constructed in a "T" shape with the base extending out into the lake approximately 20 – 30 feet and the top sized to accommodate a group of up to 30 students. The actual size and shape may vary slightly to create a more "organic" appearance, as opposed to an industrial look.

Construction of the dock is estimated to cost approximately \$120,000. This feature would be fully eligible for federal funding under the Wallop-Breaux (W-B) Program. Twenty-five percent of the cost would come from license dollars or private donations and 75% would be federal funds.

Second Group Use Shelter

A second group use shelter, similar to the one constructed on the northwest shoreline could be constructed along the southwest shore of the lake to accommodate outdoor Center programs during periods of inclement weather or to provide for public recreational use in excess of that provided by the current group use shelter. Access to the shelter would be from the southern end of Broadwater Avenue. A small parking area would be constructed with a handicapped accessible trail leading to the shelter. Potable water would be provided by a frost-free hydrant. Minimal electricity would also be provided, as for the other shelter.

The group use shelter is estimated to cost approximately \$75,000. Although some portion of the use of the shelter would be for P-R or W-B eligible uses, administrative workload associated with tracking revenue from public use of the shelter and determining the extent to which this constituted "program income" to reimburse the federal accounts would likely outweigh the benefits of including any of the cost of this feature in a federal grant. Thus the funding for this feature would likely come from state special revenue or private funds or grants received by FWP.

Vault Latrine

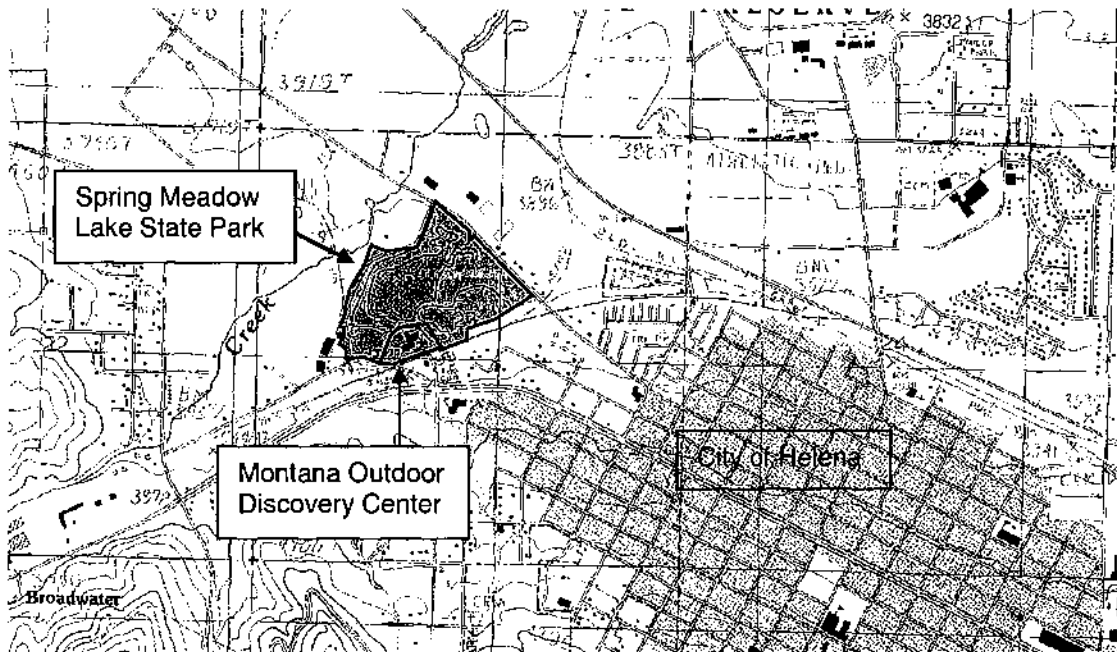
Visitors to the Center during periods when the main building is closed will need access to restroom facilities. The addition of another vault latrine on the south side of the lake, accessible from the loop trail around the lake would also provide additional comfort to park visitors and reduce sanitation issues. The latrine would be located centrally to serve the Center, amphitheater, range, group use shelter and trail system, with special attention to prevailing winds and odor control. A convenience light would be included on or in the latrine.

Installation of a vault latrine is estimated to cost about \$15,000. As with the group use shelter, the most likely source of funding would be state special revenue, private donations or grants.

LEGAL DESCRIPTIONS AND LOCATIONS OF PROPERTY

Township 10N, Range 4W Section 23

The affected area is approximately .25 mile northwest of the City of Helena.



AUTHORITY AND REGULATIONS

1. FWP

FWP has the authority to develop outdoor recreational resources in the state per state statute 23-2-101 (Montana Code Annotated (MCA)).

Furthermore, state statute 23-1-110 MCA and Administrative Rule 12.6.601-606 guides public involvement and comment for the improvements at state parks and fishing access sites, which this document provides.

2. U.S. FISH AND WILDLIFE SERVICE

The financial support for the construction of the archery range and aquatic education dock through the Pittman-Robertson and Wallop-Breaux Federal Assistance Programs constitutes a federal action subject to the provisions of the National Environmental Policy Act of 1969, as amended. USFWS is therefore required to prepare an environmental assessment to analyze the effects on the human environment and document the findings. USFWS will use this environmental assessment to determine if the proposed action is likely to result in significant impacts to the human environment. If it is determined that there are no significant adverse impacts, USFWS will issue a Finding of No Significant Impact (FONSI). If it is determined, conversely, that significant impacts might occur, the Service would be required to prepare an Environmental Impact Statement (EIS).

ALTERNATIVES

Alternative A: No Action

Under this alternative, FWP would not develop any additional features on the existing landscape at the Center beyond those considered and approved in 2005. FWP would conduct educational programs at the Center using existing facilities. This alternative would have the lowest cost, but would also have minimal benefits. Educational programs may be limited by the lack of facilities.

Alternative B: Preferred Action – Develop Additional Facilities

Under this alternative, FWP would develop the proposed features at the Center, including a youth archery/air gun range, children's discovery area, vault latrine, group use shelter and fishing/aquatic education dock. Individual elements would be developed as funding became available, which may take 3 to 5 years, or possibly even longer for complete build-out. This alternative would have a higher cost than the no action alternative, but would also provide more benefits for educational programs.

AFFECTED ENVIRONMENT

1. PHYSICAL RESOURCES

A. Land Use

All the proposed developments would occur within the boundaries of FWP-owned land that is currently designated as part of Spring Meadow Lake State Park or lands acquired for the FWP "Wildlife Center" (i.e. Wildlife Rehabilitation Shelter and education center, now called the Montana Outdoor Discovery Center). The entire area is a formerly-disturbed gravel mine site, with minimal organic soil, overlying gravel. The location of the proposed archery/air gun range is currently a drainage area for storm overflow. The location of the proposed Children's Discovery Area, vault latrine and group use shelter is vacant land. Some park visitors may walk through these areas, but this area was further disturbed by a wildfire in 2007 and soil remediation project in 2009. Vegetative cover is mainly invasive species, except on areas treated during the soil remediation project, which were seeded with a native grassland mix. The part of the lake where the dock is proposed is used mainly for fishing from shore or from non-motorized watercraft.

B. Soil and Prime/Unique Farmland

A search of the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Survey database found the following soil types for the area likely to be affected by the proposed improvements:

- 137B – Mussellshell Crago complex, 2-8% slopes
- 218A – Meadowcreek Fairway complex, 0-2% slopes
(Prime Farmland if irrigated)



Map courtesy of the NRCS Web Soil Survey database.

C. Air Quality

Air quality in the area is typical of the Helena area overall. Prevailing winds from the west provide clean air to the site most of the time. During periods when strong thermal inversions develop in the Helena valley, air quality may suffer from accumulations of exhaust from vehicles and building heating systems. Occasionally, during fire season (typically mid-July – September) air quality may be affected by smoke from wildfires.

D. Water Resources

Spring Meadow Lake State Park encompasses 61 acres, of those approximately 14 acres comprises the Spring Meadow Lake. The lake is fed by natural springs, which provides locals with a convenient location for swimming, fishing, and scuba diving. The lake is closed to all motorboats and other watercraft with engines.

A search of the US Fish and Wildlife Service Wetlands Online Mapper reported there are no designated wetlands within the Park. A search of the federal Emergency Management Administration's floodplain database was also completed and found that no part of Spring Meadow Lake State Park is categorized as a floodplain (FEMA Map # 300038 1538C, Sept. 4, 1985).

E. Noise

This state park is surrounded by residential or commercial development. Highway 12 W, south of the Park, is the main travel corridor from Helena to the west, and carries high volumes of traffic which can be heard at virtually all times of day or night. Country Club Avenue, northeast of the Park, is a busy thoroughfare for traffic to the Veteran's Hospital and the regional headquarters for the Army National Guard at Fort Harrison. Occasionally, military aircraft and weapons used at Fort Harrison can be heard at the site. The site is also

on one of the main approach and departure routes from Helena Regional Airport and, depending on weather conditions, aircraft are heard overhead.

2. BIOLOGICAL RESOURCES

A. Vegetation

Small portions of the Park have been developed into irrigated, mowed "lawn" areas adjacent to enhanced swimming beaches. Approximately 12 acres of the Park was included in a soil remediation project in 2009. As part of that project, contaminated soils were removed and replaced with new topsoil and seeded to a native grass and forb mix. These areas will likely take several years to recover fully. Control of invasive species will be important during this time.

Areas of the Park that were burned during the wildfire in 2007, including all the areas affected by the developments proposed in this EA, are currently covered with a mix of invasive species, native grasses, shrubs and forbs and root-sprouts from willows and cottonwoods that existed prior to the fire.

Areas surrounding the lake that were not burned by the wildfire in 2007 or treated in 2009 are predominantly covered by a riparian willow community.

FWP controls weeds through mechanical and chemical means per the guidelines of FWP's Integrated Noxious Weed Management Plan. There are small patches of spotted knapweed (*Centaurea maculosa*), mullein (*Verbascum thapsus* L.), and sweet clover (*Melilotus albus*) present.

B. Wildlife

Endangered, Threatened, or Candidate and State Sensitive Species

The Listed Endangered, Threatened, Proposed, and Candidate Species in Lewis and Clark County as determined by the Montana Ecological Services Field Office are as follows:

Canada Lynx	<i>Lynx canadensis</i>	threatened
Grizzly Bear	<i>Ursus arctos horribilis</i>	threatened
Bull Trout	<i>Salvelinus confluentus</i>	threatened
Black-footed Ferret	<i>Mustela nigripes</i>	endangered

None of these listed species occur in the vicinity of Spring Meadow Lake and there is no suitable habitat for these species in the area.

State Sensitive Species (per Montana Natural Heritage System database) that have been observed within Spring Meadow Lake State Park or whose general distributed in the vicinity of the park are the following:

Birds	Black Tern	<i>Chlidonias niger</i>
	Brewer's Sparrow	<i>Spizella breweri</i>
	Caspian Tern	<i>Sterna caspia</i>
	Common Loon	<i>Gavia immer</i>
	Franklin's Gull	<i>Larus pipixcan</i>
	Great Blue Heron	<i>Ardea herodias</i>

	Horned Grebe	<i>Podiceps auritus</i>
	Lewis's Woodpecker	<i>Melanerpes lewis</i>
Plants	Wedge-leaved Saltbush	<i>Atriplex truncata</i>

No adverse impacts are anticipated to any of these sensitive species due to development of any of the facilities proposed in the EA.

In 2005, a small mammal survey was completed within Spring Meadow Lake State Park. The following is a list of the species recorded and observed there, of which the majority are expected to be found at the area surrounding the Outdoor Discovery Center.

Mammals	Deer Mouse	<i>Peromyscus maniculatus</i>
	Little Brown Myotis	<i>Myotis lucifugus</i>
	Mink	<i>Mustela vison</i>
	Montane Shrew	<i>Sorex monticolus</i>
	Mule Deer	<i>Odocoileus hemious</i>
Birds	American Crow	<i>Corvus brachyrhynchos</i>
	American Robin	<i>Turdus migratorius</i>
	Barn Swallow	<i>Hirundo rustica</i>
	Black-billed Magpie	<i>Pica hudsonia</i>
	Black-capped Chickadee	<i>Poecile atricapillus</i>
	Black-headed Grosbeak	<i>Pheucticus</i>
	Bullock's Oriole	<i>Icterus bullocki</i>
	California Gull	<i>Larus californicus</i>
	Caspian Tern	<i>Sterna caspia</i>
	Cedar Waxwing	<i>Bombycilla cedrorum</i>
	Chipping Sparrow	<i>Spizella passerina</i>
	Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
	Common Grackle	<i>Quiscalus quiscula</i>
	Common Nighthawk	<i>Chordeiles minor</i>
	Common Raven	<i>Corvus corax</i>
	Common Yellowthroat	<i>Geothlypis trichas</i>
	Downy Woodpecker	<i>Picoides pubescens</i>
	Eastern Kingbird	<i>Tyrannus tyrannus</i>
	European Starling	<i>Sturnus vulgaris</i>
	Gray Catbird	<i>Dumetella carolinensis</i>
	Great Blue Heron	<i>Ardea herodias</i>
	Hairy Woodpecker	<i>Picoides villosus</i>
	House Sparrow	<i>Passer domesticus</i>
	House Wren	<i>Troglodytes aedon</i>
	Killdeer	<i>Charadrius vociferus</i>
	Mallard	<i>Anas platyrhynchos</i>
	Mourning Dove	<i>Zenaida macroura</i>
	Osprey	<i>Pandion haliaetus</i>
	Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>
	Red-winged Blackbird	<i>Agelaius phoeniceus</i>
	Spotted Sandpiper	<i>Actitis macularia</i>
	Swainson's Thrush	<i>Catharus ustulatus</i>
	Tree Swallow	<i>Tachycineta bicolor</i>

	Western Meadowlark	<i>Sturnella neglecta</i>
	Western Tanager	<i>Piranga ludoviciana</i>
	Violet-green Swallow	<i>Tachycineta thalassina</i>
	Yellow Warbler	<i>Dendroica petechia</i>
Reptiles	Painted Turtle	<i>Chrysemys picta</i>

C. Fisheries

Spring Meadow Lake is an artificial water body, created when a gravel mine filled with groundwater. A small spring provides minimal inflows. Water levels have not reached the height of an artificial outflow culvert leading to Ten Mile Creek for several years. The lake provides habitat to the following species, all of which were introduced:

Fish	Largemouth Bass	<i>Micropterus salmoides</i>
	Longnose Sucker	<i>Catostomus catostomus</i>
	Pumpkinseed	<i>Lepomis gibbosus</i>
	Rainbow Trout	<i>Oncorhynchus mykiss</i>
	Westslope Cutthroat Trout	<i>Oncorhynchus clarkii lewisi</i>
	White Sucker	<i>Catostomus commersoni</i>
	Yellow Perch	<i>Perca flavescens</i>

Since 2000, FWP has periodically stocked the lake with rainbow trout and westslope cutthroat trout.

3. SOCIO-ECONOMIC RESOURCES

A. Community

Spring Meadow Lake State Park is important to the Helena community for its aesthetic and recreational value. It provides open space on the west side of town in an area that has seen intermittent, but steady urban development. The Park has been identified as the western end of the proposed Centennial Trail that will link open lands from Spring Meadow east through the Lewis and Clark County Fairgrounds, Centennial Park in the center of Helena to East Helena. The lake has been a popular swimming and picnic area from the time gravel mining ended in the 1960's.

B. Taxes and Public Services

The lands affected by the developments in this EA are within Spring Meadow Lake State Park and, as such, are exempt from city or county taxes under state law. FWP currently pays \$4526.12 per year in special assessments for street maintenance, storm water maintenance, tree maintenance and open space maintenance on this property. The developments proposed in this EA would not affect these payments.

C. Historical and Cultural

Renewable Technologies Inc. (RTI) conducted an extensive inventory of the history and cultural resources of the Spring Meadow Lake area in 2005. RTI's report, "Spring Meadow Lake Site, Lewis & Clark County, Owner/Operator History and Cultural Resource Investigation, Vol. 1: Report, 2005" documented that most of the area being considered for development under this EA was disturbed during gravel mining operations conducted between 1940 and 1960. The area where the Children's Discovery Zone is proposed was further modified during the soil remediation project in 2009. Consequently, development of

these facilities, with the exception of the youth archery/ air gun range, would have no effect on historical or cultural resources.

The existing depression that is proposed as the location for the youth archery/air gun range (site 24LC1972 in RTI, 2005) was identified as the presumed site of the historic Kessler Brewery bottle dump based on the heavy concentration of broken bottles and its proximity to the old Kessler Brewery. A number of bottles or bottle fragments along with other debris are still evident on the surface of the ground in the upper sections of the depression.

RTI (2005) reported that the site was damaged on more than one occasion in the past and that what remains is just a small portion of the original feature. Damage was the result of random bottle collecting, gravel mining operations and construction of Broadwater Avenue. During recent upgrading of Broadwater Avenue, associated with development on the south side of the street, this site was further disturbed by construction of a drainage culvert that empties into the head of the depression. When the site was recorded in 2005, RTI did not feel it was eligible for listing in the National Register of Historic Places due to previous site damage and the resulting loss in site integrity.

Development of the youth archery/air gun range involves excavation in some areas. Debris on the surface of the depression would be removed, largely by hand, and clean fill material would be brought in to cover the area and create the necessary berms and contours, and provide soil for appropriate vegetation. FWP would lay filter cloth over the bottle dump and place fill on top of it which would help protect the site. This work would be coordinated with the City of Helena to ensure the depression continues to serve effectively as a drainage for storm event runoff.

Given the extent of prior disturbance to the site, FWP does not believe that further modification will result in significant losses of historic value or resources especially since the site was evaluated by RTI as being ineligible for National Register listing. Any artifacts that are discovered during the course of development of the youth archery/air gun range will be salvaged for interpretive display at the center or given to the Montana Heritage Commission's McFarland Curation Facility in Virginia City.

D. Aesthetics and Recreation

Although the park is on the fringe of the state capital, the area provides open space with aesthetic views of Mount Helena to the south. Aside from the developed recreational areas at the north end of the lake, the environment is kept in a semi-natural state as much as possible to allow visitors the ability to walk the lake's perimeter and enjoy relative solitude and viewing numerous birds and other wildlife.

Spring Meadow Lake State Park is a very popular year-round destination for Helena residents. Winter activities include ice fishing or skating. During the spring, summer and fall, activities such as swimming, fishing, walking and jogging for exercise, bird watching, picnicking, and scuba diving are popular. During 2009, the park received over 49,000 visitors, which was a 20% increase over the number of visitors in 2008.

Fishing throughout the seasons for trout, bass and other species is a family favorite at the park. Fishing pressure in 2007 was estimated at 3,198 angling days fished, which ranked this location 22nd in FWP's Region Three. Assimilation of the data for the 2009 fishing season will not be available until May 2010.

PREDICTED ENVIRONMENTAL CONSEQUENCES

1. LAND USE

A. Proposed Action Alternative

Minor disruption, compaction or over-covering of soil would occur with construction of the archery/airgun range, Children's Discovery Area, vault latrine, group use shelter and path leading to the fishing/aquatic education dock. The total area affected would be less than one acre. Land use would not change substantially, except that recreational uses of the land would be enhanced by development and use of the proposed features.

B. No Action Alternative

No changes in land use would occur under the no action alternative.

2. SOILS AND PRIME/UNIQUE FARMLAND

A. Proposed Action Alternative

Minor disruption, compaction or over-covering of soil would occur with construction of the archery/airgun range, Children's Discovery Area, vault latrine, group use shelter and path leading to the fishing/aquatic education dock. The total area affected would be less than one acre. No prime or unique farmland would be affected. All areas have previously been disturbed by gravel mining operations between 1940 and 1960.

B. No Action Alternative

No impacts would occur to the soil under the no action alternative.

3. AIR QUALITY

A. Proposed Action Alternative

Minor and temporary dust and vehicle emissions would be created by heavy equipment used to develop the proposed features. Watering roads could reduce dust during construction. The vault latrine may produce a minor amount of objectionable odor. Proper design, placement and routine maintenance should mitigate the odors.

B. No Action Alternative

No impacts on air quality would occur under the no action alternative.

4. WATER RESOURCES

A. Proposed Action Alternative

Minor increases in turbidity of water in the southwest corner of Spring Meadow Lake may occur during setting of pilings for the fishing/aquatic education dock.

B. No Action Alternative

No impacts would occur to water quality under the no action alternative.

5. NOISE

A. Proposed Action Alternative

Daytime noise levels would increase for several months while crews and heavy equipment were working to develop these facilities.

Development of these facilities may result in increased use of the Montana Outdoor Discovery Center and minor increases in noise associated with group functions. These group functions can be scheduled to minimize impacts of noise on others. Establishment of tall vegetation as part of the habitat restoration following the 2007 fire may also reduce the noise impact.

Minor, intermittent vehicle noise would occur in association with use of the group use shelter. This will be limited by gating the access road to the shelter except during approved group use activities.

B. No Action Alternative

No impact to noise levels would occur under the no action alternative.

6. VEGETATION

A. Proposed Action Alternative

Minor changes in the abundance of plant species will occur as a result of construction and use of the archery/airgun range, Discovery Area, vault latrine, group use shelter and fishing/aquatic education dock. However the total area affected will be less than one acre. Increased use of the area associated with the Montana Outdoor Discovery Center may provide higher priority and funding for FWP to accelerate restoration of areas burned in the 2007 and control of invasive species.

B. No Action Alternative

No impacts would occur to vegetation under the no action alternative.

7. WILDLIFE

A. Proposed Action Alternative

Development of these facilities may result in more people visiting the Montana Outdoor Discovery Center, and minor associated disturbance or stress for wildlife. This is not a major concern, given that the site is in a developed part of the Helena vicinity.

B. No Action Alternative

No impacts would occur to wildlife under the no action alternative.

8. FISHERIES

A. Proposed Action Alternative

Minor increases in fishing pressure may occur in the area surrounding the aquatic education/fishing dock. This is not anticipated to adversely affect either fish populations or the quality of the fishing opportunities within the lake.

B. No Action Alternative

No impacts to fisheries would occur under the no action alternative.

COMMUNITY

A. Proposed Action Alternative

Development of additional features at the Montana Outdoor Discovery Center will result in minor increases in traffic flow from Highway 12 West onto Broadwater Avenue and from Broadwater Avenue onto Highway 12 West. Development of the proposed facilities would enhance the range of recreational opportunities at the Park.

B. No Action Alternative

No impacts to the community would occur under the no action alternative.

10. TAXES AND PUBLIC SERVICES

A. Proposed Action Alternative

Development of these facilities may result in additional use of the Montana Outdoor Discovery Center. This could result in minor increases for the need police or fire services and pumping for the vault latrine. The impacts to police and fire will be mitigated by FWP staff presence on-site and construction using fire-proof and/or fire resistant materials.

B. No Action Alternative

No impacts would occur to taxes or public services under the no action alternative.

11. HISTORICAL AND CULTURAL RESOURCES

A. Proposed Action Alternative

Development of these facilities may result in additional visitation to the Montana Outdoor Discovery Center. Because the historic Stedman Foundry Machine Shop building, which is on the National Register of Historic Places, is part of the center, this could result in more people coming to, and learning about, this historic structure.

Development of the youth archery/air gun range would result in minor disturbance to the presumed historic Kessler Brewery bottle dump (RTI, 2005). FWP does not plan extensive excavation of the area. Rather, debris on the surface of the depression would be removed, largely by hand, and clean fill material would be brought in to cover the area and create the necessary berms and contours, and provide soil for appropriate vegetation. Filter cloth will be placed over the bottle dump to protect it prior to placing fill over it.

Given the extent of prior disturbance to the site, FWP does not believe that further modification will result in significant losses of historic value or resources especially since the site was evaluated by RTI as being ineligible for National Register listing. Any artifacts that are discovered during the course of development of the youth archery/air gun range will be salvaged for interpretive display at the center or given to the Montana Heritage Commission's McFarland Curation Facility in Virginia City.

B. No Action Alternative

No impact would occur to the historical and cultural resources under the no action alternative.

12. AESTHETICS AND RECREATION

A. Proposed Action Alternative

Development of these facilities will improve the aesthetic character of the neighborhood by enhancing the Montana Outdoor Discovery Center. Development of these facilities will increase both the quantity and quality of recreational/tourism opportunities and settings.

B. No Action Alternative

No impacts would occur to the aesthetic or recreational resources under the no action alternative.

13. RISK/HEALTH HAZARDS

A. Proposed Action Alternative

Construction and use of the fishing/aquatic education dock would add a minimal amount to the risk of drowning. This risk would be mitigated by construction of the dock with a railing system to prevent accidental falls from the dock into the water.

Construction and use of the archery/airgun range would add a minimal amount to the risk of injury from a projectile. This risk would be mitigated by construction of the range and shooting stations in such a manner, and in an area of existing topographic relief, that precludes any projectile from leaving the range area; conducting all shooting under careful adult supervision; limiting archery equipment to bows with less than 30 pounds of pull and arrows to field points; limiting air guns to guns that shoot "BB's" or .17 cal. pellets; and fencing the range to prevent accidental access during active shooting.

B. No Action Alternative

No impacts would occur to the risk/health hazards under the no action alternative.

CUMULATIVE IMPACTS

As noted at the beginning of this Environmental Analysis, in 2005, FWP decided to undertake development of a number of features and facilities in Spring Meadow Lake State Park and at the Montana Outdoor Discovery Center. Most of these approved elements have been completed or are under development. The impacts of the features proposed in this EA, while minor, would be additive to those identified in the 2005 process. At the same time, the benefits derived from the features proposed in this EA would also be additive to those resulting from developments approved in 2005.

Overall, FWP believes the benefits provided by the additional features proposed in this EA far exceed the minor, and in some cases temporary, impacts associated with development of these features. The majority of the land in Spring Meadow Lake State Park and at the Montana Outdoor Discovery Center will remain open space with vegetation maintained in a way that provides a diversity of wildlife habitats and recreational opportunities.

PUBLIC PARTICIPATION

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Two public notices in the Helena *Independent Record*;
- Public notice on the Fish, Wildlife & Parks web page: <http://fwp.mt.gov>; and
- Copies of this environmental assessment will be distributed to the neighboring landowners and interested parties to ensure their knowledge of the proposed project.

A public meeting will be scheduled in Helena to coincide with the public comment period for the EA. Information identifying the specific date, time, and venue will be advertised within local papers and posted on the FWP website as it becomes available.

The public comment period for state purposes will extend for (30) thirty days from the date when the assessment is published by the FWP website. Written comments to this Draft Environmental Assessment will be accepted until 5:00pm August 11, 2010 and can be sent to the following:

Montana Outdoor Discovery Center Improvement Project
Montana Fish, Wildlife & Parks
1420 E. 6th Ave.
Helena, MT 59601
Or email to crsmith@mt.gov

AGENCIES OR OFFICE CONTRIBUTING TO THIS EA

Lewis and Clark County
Montana Fish, Wildlife & Parks
Communication and Education Bureau
Design and Construction Bureau
Parks Division
Legal Bureau
Wildlife Bureau
Montana State Historic Preservation Office
Montana Department of Tourism
Montana Natural Heritage Program

EA PREPARATION

Chris Smith
Special Projects
Montana Fish, Wildlife and Parks
1420 East 6th Ave., Helena MT 59601
406-444-3032

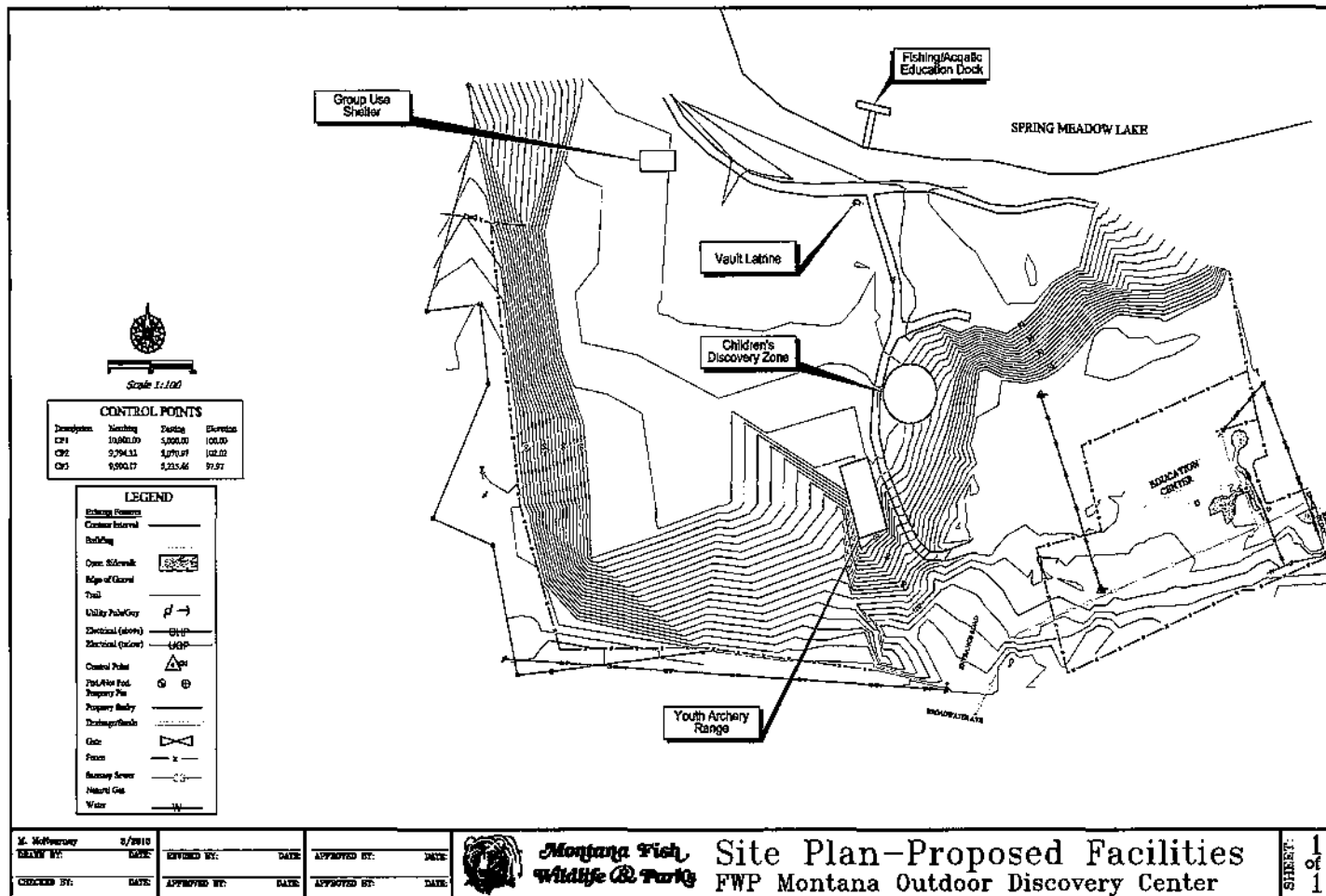
Rebecca Cooper
MEPA Coordinator
Montana Fish, Wildlife and Parks
1420 East 6th Ave., Helena MT 59601
406-444-4756

Craig Marr
Park Manager
Montana Fish, Wildlife and Parks
930 Custer Ave. West, Helena MT 59601
406-495-3270

Appendices

- A – Concept Plan of Proposed Improvements
- B – MT Department of Commerce Tourism Report
- C – State Historic Preservation Office Letter
- D – HB 495 Checklist

Appendix A



Appendix B

TOURISM REPORT

MONTANA ENVIRONMENTAL POLICY ACT (MEPA) & MCA 23-1-110

The Montana Department of Fish, Wildlife and Parks has initiated the review process as mandated by MCA 23-1-110 and the Montana Environmental Policy Act in its consideration of the project described below. As part of the review process, input and comments are being solicited. Please complete the project name and project description portions and submit this form to:

Carol Crockett, Visitor Services Manager
Travel Montana-Department of Commerce
301 S. Park Ave.
Helena, MT 59601

Project Name: Montana Outdoor Discovery Center Improvement Project

Project Description: Based on further planning for the Montana Outdoor Discovery Center, Montana Fish, Wildlife and Parks (FWP) is now considering adding the following features to the landscape:

- A Youth Archery/Airgun Range.
- A Children's Discovery Zone.
- A fishing/aquatic education dock on the south shore of the lake.
- A second group-use shelter.
- An additional vault latrine.

1. Would this site development project have an impact on the tourism economy?
NO YES If YES, briefly describe:

Yes, as described, the project has the potential to positively impact the tourism and recreation industry economy. We are assuming that the agency has determined it has the necessary funding for the on-going operations and maintenance once this project is complete.

2. Does this impending improvement alter the quality or quantity of recreation/tourism opportunities and settings?
NO YES If YES, briefly describe:

Yes, as described, the project has the potential to improve the quality and quantity of tourism and recreational opportunities. We are assuming that the agency has determined it has the necessary funding for the on-going operations and maintenance once this project is complete.

Signature Carol Crockett, Visitor Services Manager Date: April 28, 2010

Appendix C

From: Valle, Paul
Sent: Thursday, January 07, 2010 7:49 AM
To: Smith, Chris (FWP); Brooks, Adam
Subject: FW: Stedman Foundry Site Plan

Chris and Adam

Comments from the SHPO (I included the entire site in the request so we have it if we move forward with fed aid funds on any future parts).

Paul

Big Sky. Big Land. Big History.



January 6, 2010

Mr. Paul Valle
Design & Construction Section Supervisor
Montana FWP
600 North Park Ave.
PO Box 200701
Helena, MT 59620-0701

Ref: Proposed Landscape plan for Stedman Foundry Machine Shop

Dear Paul:

We reviewed the plans you submitted for the above referenced undertaking and it appears that what FWP proposes would likely not adversely affect the Machine Shop.

The only comment I have is that SHPO would like to see something in the way of interpretive materials that call attention to the history of the Stedman complex. We feel this is especially important since the Machine Shop is the last standing structure left. Historical site interpretation would also explain the presence of Spring Meadow Lake since it started as a source for aggregate.

Such interpretive materials would be complete with historic photos and a narrative discussing the complex's current and former architecture, relation to the landscape, and its contributions to early industry in the Helena area. Much of the information used in such an interpretive panel is easily available from the SHPO and Montana Historical Society files.

Thanks for sharing your current plan with us. I realize it's somewhat schematic at this point, but please let me know what you think of the historical interpretation idea.

Sincerely,

Pete Brown
Historic Architecture Specialist
Montana SHPO

Appendix D

23-1-110 MCA PROJECT QUALIFICATION CHECKLIST

Date: April 28, 2010

Person Reviewing: Chris Smith

Project Location: Spring Meadow Lake State Park Township 10N, Range 4W
Section 23. The affected area is approximately .25 mile northwest of the City of Helena.

Description of Proposed Work: Based on further planning for the Montana Outdoor Discovery Center, Montana Fish, Wildlife and Parks (FWP) is now considering adding the following features to the landscape:

- A youth archery/airgun range.
- A children's discovery zone.
- A fishing/aquatic education dock on the south shore of the lake.
- A second group-use shelter.
- An additional vault latrine.

The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under 23-1-110 rules. (Please check ☐ all that apply and comment as necessary.)

- [☐] A. New roadway or trail built over undisturbed land?
Comments: *None*
- [☐] B. New building construction (buildings <100 sf and vault latrines exempt)?
Comments: *A second group use shelter is planned to be built on the northwest shoreline of lake but it is not designed to be over 100 square feet.*
- [☐] C. Any excavation of 20 c.y. or greater?
Comments: *No. All of the proposed improvement, with the exception of the vault latrine, will not require any excavation activities.*
- [☒] D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?
Comments: *A new small parking lot is planned to be built near the second group use shelter. The parking lot would be connected to the shelter area by an ADA-compliant trail.*
- [☐] E. Any new shoreline alteration that exceeds a double wide boat ramp or handicapped fishing station?
Comments: *None*
- [☒] F. Any new construction into lakes, reservoirs, or streams?
Comments: *The proposed improvements include the construction of a "T" shaped fishing/aquatic education dock that could accommodate 30 students.*

The dock is expected to extend approximately 20'-30' into Spring Meadow Lake from the south shore.

[☒] G. Any new construction in an area with National Registry quality cultural artifacts (as determined by State Historical Preservation Office)?

Comments: *None*

[☐] H. Any new above ground utility lines?

Comments: *None*

[☐] I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?

Comments: *No*

[☐] J. Proposed project significantly changes the existing features or use pattern; including effects of a series of individual projects?

Comments: *No.*

If any of the above are checked, 23-1-110 MCA rules apply to this proposed work and should be documented on the MEPA/HB495 CHECKLIST. Refer to MEPA/HB495 Cross Reference Summary for further assistance.

Montana Wild Coordination Schedule

Timing	Infrastructure	Interpretation	Conservation/Science Education	Outdoor Skills Education	Conservation literacy & Related Efforts	Volunteer Management
	(Chris)	(Chris/Ken)	(Laurie/Kurt)	(Dave/Liz/Patti)	(Thomas/Ron)	Lisa/Laurie
June 30, 2011	<ul style="list-style-type: none"> Complete building and parking lots/road paving Construct bear "jungle gym" Install bear and perching garden video feed system Complete the flight pen Outfit the trailer Complete the archery range and dock; install the vault latrine Begin interpretive landscaping 	<ul style="list-style-type: none"> Complete updated site master interpretive plan by April 1 Develop partnerships for landscaping by May 1. Develop RFP and raise funds for interior displays by June 1. Draft trail grant application for interpretive trails program by July 1. 	<ul style="list-style-type: none"> Complete education master plan by March 1 Develop implementation plan by May 1 Recruit and train volunteers and intern (ongoing) Develop at least 2 programs for summer delivery by June 1 Deliver summer programs 	<ul style="list-style-type: none"> Complete master outdoor skill master plan by April 1 Develop implementation plan by May 1 Partner with Helena Outdoor Fest (June 11) and offer summer outdoor skill programs 	<ul style="list-style-type: none"> Develop master plan for advancing conservation literacy by April 1. Develop implementation plan by May 1 specific to center promotion/branding, website/portal and conference planning for Montana Outdoor Alliance by May 1. Develop operational plan for Montana Wild by March 1 and secure funding to support functions at the Center working closely with Parks. 	<ul style="list-style-type: none"> Refine procedure for recruiting and managing volunteers by March 1. Launch comprehensive and department consistent volunteer management program by May 1 Recruit xx volunteers to meet Center needs by June 1.
Sept. 1, 2011			<ul style="list-style-type: none"> Host internal and external inquiry institutes 		<ul style="list-style-type: none"> Complete website/portal Host conference to "roll out" the center, demonstrate the website and broaden partnerships 	
Dec. 31, 2011						
June 30, 2012	Complete interior exhibits, depending on funding					

Notes:

1. Need to factor in development of ELP, assuming that moves forward with grant funding for coordinator
2. Incorporate "Living With Wildlife" elements into the conservation/science education with Lisa's involvement.
3. Need to look for ways to link with and integrate regional offices and regional Comm/Ed staff, e.g. "traveling" displays for regional offices; include regional Comm/Ed, Fish and Wildlife staff in the inquiry institute workshops